

Amendments to the claims (this listing replaces all prior versions):

1. (currently amended) Apparatus comprising
a portable electronic device comprising
a digital camera, and
a processor configured to derive handwriting or control information from light received
by the digital camera from a writing instrument when the writing instrument is used on a writing
surface, the writing instrument and writing surface being separate from the apparatus.
2. (original) The apparatus of claim 1 in which the portable electronic device comprises a
mobile telephone or a personal digital assistant.
- 3-4. (cancelled)
5. (original) The apparatus of claim 1 also including an infrared filter arranged to filter light
being received from the writing instrument.
6. (original) The apparatus of claim 1 also including a lens arranged to alter the focal length
and/or depth of field of the digital camera.
7. (previously presented) The apparatus of claim 1 also including a mechanism configured
to enable the portable electronic device to be attached to a writing surface.
8. (original) The apparatus of claim 7 in which the mechanism comprises a suction device
configured for attachment to a white board.
9. (original) The apparatus of claim 7 in which the mechanism comprises a clip configured
to grasp paper.

10. (previously presented) The apparatus of claim 1 also comprising a writing surface.
11. (original) The apparatus of claim 10 in which the writing surface is on a protective cover.
12. (previously presented) The apparatus of claim 1 in which the processor is configured to define a mapping between a sensor surface in the digital camera and a space in which the writing instrument is located.
13. (previously presented) The apparatus of claim 1 in which the processor is configured to define the mapping in response to calibration steps that include a user marking three locations in the space in which the writing instrument is located.
14. (previously presented) The apparatus of claim 1 in which the processor is configured to derive the location and trajectory of the writing instrument.
15. (previously presented) The apparatus of claim 1 in which the processor is configured to generate the handwriting and control information based on processing cycles each associated with one location of the writing instrument.
16. (previously presented) The apparatus of claim 1 in which the processor is configured to discriminate light received from the writing instrument from other light by locking onto a carrier frequency at which light from writing instrument is modulated.
17. (previously presented) The apparatus of claim 1 in which the processor is configured to determine a tilt of the writing instrument relative to a direction normal to a writing surface.

18. (previously presented) The apparatus of claim 1 in which the portable electronic device also comprises a display, and in which the processor is configured to cause the display to show the trajectory of the writing instrument in real-time.
 19. (original) The apparatus of claim 18 in which the display is not touch-sensitive.
 20. (previously presented) The apparatus of claim 1 in which the processor comprises a digital signal processing chip and a general purpose microprocessor and software is run in part on the chip and in part on the microprocessor.
 21. (previously presented) The apparatus of claim 1 in which the portable electronic device also comprises a wireless communication facility and in which the processor is configured to communicate the handwriting or control information to a remote location.
 22. (original) The apparatus of claim 1 in which the digital camera is configured to receive light that has been reflected from the writing instrument.
 23. (original) The apparatus of claim 1 in which the digital camera comprises a still camera.
 24. (previously presented) The apparatus of claim 1 in which the digital camera comprises a video camera.
 25. (original) The apparatus of claim 1 also including an infra-red beacon configured to be directed at the writing instrument.
 26. (previously presented) The apparatus of claim 1 in which the processor is configured to apply pattern recognition to signals from the digital camera.
- 27 – 41. (cancelled)

42. (currently amended) A method comprising
in a portable electronic device comprising a digital camera and a processor,
receiving images at the digital camera comprising light from a writing instrument being used on a writing surface, the writing instrument and writing surface being separate from the device, and
deriving handwriting and control information from the images.

43-52. (cancelled)

53. (new) Apparatus comprising
a portable electronic device comprising
a digital camera, and
a processor configured to
derive handwriting or control information from light received by the digital camera from a writing instrument separate from the apparatus, and
define a mapping between a sensor surface in the digital camera and a space in which the writing instrument is located in response to calibration steps that include a user marking three locations in the space in which the writing instrument is located.